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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,358	02/14/2001	Cristian Demetrescu	19-17-11-4-18	7819

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LUCENT TECHNOLOGIES INC.  
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EXAMINER

LERNER, MARTIN

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/782,358

Applicant(s)

DEMETRESCU ET AL.

Examiner

Martin Lerner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 to 4 and 7 to 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 4 and 7 to 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4, 7, 9, 11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by *Chu et al.* ('707).

Regarding independent claim 1, *Chu et al.* ('707) discloses a method for controlling the transition between two operative modes in a data communication channel, comprising:

“at each end both measuring quality of a received signal, and forwarding an instruction to change the mode of operation of the transmission codec at the other end in response to a change in the quality of the received signal” – control unit 220 includes a link impairment monitor unit 300 (“measuring quality”) whose basic function is to detect the occurrence of link impairments and to collect statistical information about such impairments; the link impairment monitor unit 300 observes the audio data signal on the return link (“of a received signal”) of the data communication channel 231 for the presence of data transmission errors that are indicative of the presence of a link

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impairment; bypass logic of each codec 210, 215 and each control unit 220, 225 performs link impairment analysis to control the transition bypass mode ("at each end both measuring quality of a received signal"); each control unit 220, 225 implements bypass logic that reacts to link impairments ("in response to a change in the quality of the received signal") (column 6, lines 30 to 67: Figures 2 and 3); control units 220, 225 provide a handshaking function to establish a codec bypass condition, and control signals are exchanged over data communication channel 231 based upon a minimal number of error-free control messages detected by link error response unit 304 ("forwarding an instruction to change the mode of operation of the transmission codec") (column 5, lines 1 to 48; column 7, line 53 to column 8, line 31: Figure 4: Steps 406 to 410).

Regarding independent claims 9, 11, and 12, *Chu et al.* ('707) discloses a method, system, and transceiver for controlling the transition between two operative modes in a data communication channel, comprising:

"measuring, by the first end, quality of a received signal from a second end of the communication link" – control unit 220 includes a link impairment monitor unit 300 whose basic function is to detect the occurrence of link impairments and to collect statistical information about such impairments; the link impairment monitor unit 300 observes the audio data signal on the return link ("of a received signal") of the data communication channel 231 for the presence of data transmission errors that are indicative of the presence of a link impairment; bypass logic of each codec 210, 215 and

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each control unit 220, 225 performs link impairment analysis to control the transition bypass mode (column 6, lines 30 to 67: Figures 2 and 3);

“forwarding by the first end an instruction to change a mode of operation of a transmission codec at the second end in response to a change in the quality of the received signal” – control units 220, 225 provide a handshaking function to establish a codec bypass condition, and control signals are exchanged over data communication channel 231 based upon a minimal number of error-free control messages detected by link error response unit 304 (column 5, lines 1 to 48; column 7, line 53 to column 8, line 31: Figure 4: Steps 406 to 410); control unit 220 provides a control signal for a codec bypass mode to control unit 225;

“receiving by the first end an instruction from the second end to change the mode of operation of the transmission codec at the first end in response to a change in quality of a signal from the first end that is received and measured at the second end” – control units 220, 225 provide a handshaking function to establish a codec bypass condition, and control signals are exchanged over data communication channel 231 based upon a minimal number of error-free control messages detected by link error response unit 304 (column 5, lines 1 to 48; column 7, line 53 to column 8, line 31: Figure 4: Steps 406 to 410); control unit 220 receives a control signal to change a codec bypass mode from control unit 225.

Regarding claim 4, *Chu et al.* ('707) discloses control signals of a handshaking function for changing a codec mode (column 5, lines 22 to 34: Figure 2); control signals provide "a command or request".

Regarding claim 7, *Chu et al.* ('707) discloses a communication channel for a cellular wireless telecommunications network ("a link in a mobile communications system") (column 4, lines 40 to 48: Figure 1).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2, 3, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Chu et al.* ('707) in view of *Biedermann* ('292).

*Chu et al.* ('707) discloses a TDMA or GSM protocol (column 4, lines 48 to 53), and suggests a maximal amount of time to complete a successful bypass negotiation (column 7, line 64 to column 8, line 20), but does not disclose a minimum period for changing the codec mode of 160 ms. *Biedermann* ('292) suggests a telecommunication interface for sending data messages via radio channels in TDMA, wherein a time sequence from the base station RFP to the mobile part RPP is defined by a multi-timeframe MZR that occurs every 160 ms and comprises 16 timeframes ZR having a

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respective time duration of 10 ms. (Column 3, Lines 29 to 43: Figures 1 and 2)

Moreover, Applicants' Specification, Page 8, Lines 11 to 13, admits that it is conventional in GSM to send the codec mode request/command every 160 ms. Given the suggestion of *Chu et al.* ('707) that a bypass negotiation takes a certain period of time for GSM or TDMA; the teaching of *Biedermann* ('292) that time frames in TDMA are sent every 160 ms; and Applicants' admission that 160 ms is conventional for a codec change request in GSM, it would have been obvious to one having ordinary skill in the art to set a minimum period of 160 ms for changing the codec mode in *Chu et al.* ('707) because 160 ms is a conventional standard in TDMA as suggested by *Biedermann* ('292).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Chu et al.* ('707) in view of *Lubin et al.*

*Chu et al.* ('707) discloses a signal processing apparatus for a cellular wireless telecommunications network or Voice-over-IP (VoIP), which VoIP necessarily requires data packets, but does not expressly disclose a packet switching system. However, it is well known that cellular communication systems transmit data via packet switched networks. *Lubin et al.* teaches a digital wireless communication system and network called Cellular Digital Packet Data (CDPD) that provides a packet-switched data service for mobile subscribers. (Column 6, Line 62 to Column 7, Line 14) The objective is to combine the capabilities of a voice cellular telephone and a wireless fax-modem to achieve mobility in the transmission of digital and facsimile information. (Column 3, Line

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60 to Column 4, Line 12) It would have been obvious to one having ordinary skill in the art to integrate a packet-switching system as taught by *Lubin et al.* into the method and system for controlling the transition between two operative modes in the presence of link impairments of *Chu et al.* ('707) for the purpose of combining the capabilities of a voice cellular telephone and a wireless fax-modem to achieve mobility in the transmission of digital and facsimile information.

### ***Response to Arguments***

6. Applicants' arguments have been considered but are moot in view of the new grounds of rejection necessitated by amendment.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Pon et al. ('424), Weaver, Jr. et al., Brophy et al., Pon et al. ('309), and Ladden et al. disclose related art.

8. Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (703) 308-9064. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER